

EFFICIENCY AT WORK

A - 2000™ SERIES



*Gas-Fired
Water Heaters*

WEBEN JARCO

THE BEST WATER HEATING VALUE AVAILABLE IN AN EFFICIENT, HARDWORKING PACKAGE

Economical and reliable, our A-2000™ Series heaters provide fuel savings and operational paybacks.



All A-2000™ Series heaters feature an "hourglass" copper heat exchanger (top) and "turbulated" gas jet burner (bottom) for maximum efficiency.

For efficiency, value, and performance in a water heating system, Weben-Jarco's A-2000™ Series gas-fired hot water heaters are the ideal choice. These high quality heaters are engineered for reliable hot water production in a compact, energy-conserving design.

Proven for over 40 years, the A-2000™ Series water heaters fulfill hot water requirements for such applications as commercial buildings, hotels, laundries, and industrial processing operations. Constructed to meet ASHRAE 90.1B addn. standards, they are factory-assembled, wired and tested by skilled craftsmen following industry codes.

Energy-Efficient Design

The A-2000™ Series hot water heaters provide efficient, cost-effective solutions and operational payback savings with the following designed-in features.

"Turbulated" Gas Jet Burner

The economizing burner in Weben-Jarco gas-fired water heaters utilizes counter-opposed "turbulated" bronze jets, combined to form one "turbulated" combustion-efficient flame. This creates a high demand for cold secondary air. Constant cold air movement over the burner manifold castings stabilizes the fuel-to-air ratio and provides a clean, soot-free burner flame along with a high ratio of BTU input in a minimum space requirement.

"Hourglass" Copper Heat Exchanger

Weben-Jarco's single continuous copper coil heat exchanger, made of 2 1/4" O.D. integral finned tube copper with a 1 1/4" I.D., features a spiralled groove interior to ensure high heat transfer. Its unique "hourglass" configuration provides maximum thermal efficiency, wringing out up to 83% of the heat value from the combustion gas to the water.

Additionally, its double funnel forces the hot products of combustion to pass *twice* through the finned tube area of the wound coil, further improving overall heat transfer efficiency.

Electronic Intermittent Ignition Device

The Electronic Intermittent Ignition Device (I.I.D.) eliminates the conventional standing pilot, saving an estimated 7,000 cubic feet of gas per year.

Insulating Jacket

The heater jacket is insulated with 3" fiberglass to minimize heat loss.





Note: A field mounted and wired safety flow switch is recommended on the outlet manifold of all Weben-Jarco type water heaters.

* All combined components of a single redundant main gas valve in heater models AJH-18, AJH-35-1 and AJH-50.

Ease of Installation and Service

The A-2000™ Series gas-fired hot water heaters feature a space-saving round design for ease of installation (1.4 million BTU through a 36" door) and service in limited equipment areas. The water inlet and outlet manifolds are field rotatable for simplified plumbing. The combustion chamber is easily accessed through a movable combustion chamber skirt.

Long-Lasting, Rugged Design

The A-2000™ Series heaters are engineered to equal or outlast any other heaters on the market. They are manufactured and tested under rigid quality control, and their rugged design ensures reliable performance over many years.

To provide further longevity, the continuous coil heat exchanger allows deliming without disassembly of the jacket or blockage of manifold passageways. In addition, the large coil diameter permits low water temperature rise and minimizes the buildup of scale.

Safety Features

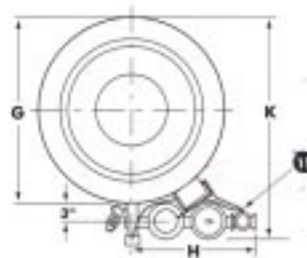
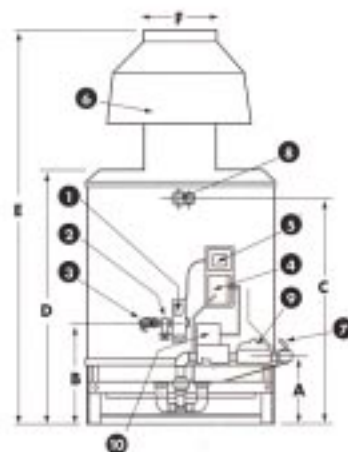
Safety features include pilot flame failure recognition, mechanical and electrical shut-down in the event of a pilot outage, and a pilot control module. Also featured is a Combination Energy Cut-off (E.C.O.) with a 200°F maximum setting and high-limit aquastat having a 180°F maximum setting.

Factory-Furnished Controls and Equipment

1. High Limit Aquastat (220°F maximum setting)
2. Pressure Relief Valve
3. Drain Cock
4. Intermittent Ignition Device
5. Electric Junction Box with a 24-Volt Transformer
6. Draft Diverter
7. Manual Gas Valve
8. Bronze Water Inlet Manifold (bronze water outlet manifold located behind drain cock)
9. Gas Pressure Regulator* †
10. Automatic Gas Valve* †
11. Pilot Solenoid Valve* †

Each individual heater is equipped with an intermittent pilot gas burner providing a safe-start check; a 30,000-volt potential for spark ignition of pilot burner; opening of the pilot valve; discontinuance of ignition spark when pilot flame is ignited; and opening of the main gas valve.

*AV combined in a single redundant combination gas valve in heater models AJH-18, AJH-35-1, and AJH-50.
†Canadian gas train varies slightly as redundancy not required.



Max. Working Pressure = 160 PSI.

PHYSICAL DIMENSIONS

Model Number*	A	B	C	D	E	F	G	H	K
AJH-18	4 1/4	17	32	36	56	7	20	17	22
AJH-35-1	8 1/2	17 1/2	34	38	57 1/2	9	24	10	29
AJH-50	8	16 1/2	38	42	68 1/2	10	28	12 1/2	33
AJH-70-1	10 1/2	13 1/2	33	38 1/2	65 1/2	12	32	19	36 1/2
AJH-97-1	6 1/2	14 1/2	35	39 1/2	78 1/2	14	35	20	40
AJH-120**	6	14 1/2	42	46	81 1/2	16	35	22	43
AJH-140-1**	5	15	42	46	97 1/2	18	35	22	43

*All dimensions are in inches, subject to manufacturers' tolerances.

**L.P. Gas not available on models AJH-97-1, AJH-120, AJH-140-1.

RECOMMENDED PUMP INSTALLATIONS

Model Number	Single Heater	** Dual Heater
AJH-18	TACO 007B 1/2HP 1PH-115V	TACO 007B 1/2HP 1PH-115V
AJH-35-1	TACO 012 1/2HP 1PH-115V	TACO 012 1/2HP 1PH-115V
AJH-50	TACO 012 1/2HP 1PH-115V	BURKS 3GA5 1 1/2AB 1/2HP 1PH-115V
AJH-70-1	BURKS 3GA5 1 1/2AB 1/2HP 1PH-115V	BURKS 10GA5 1 1/2AB 1HP 1PH-115V
AJH-97-1	BURKS 10GA5 1 1/2AB 1HP 1PH-115V	BURKS 20GA6 1 1/2AB 2HP 1PH-115V
AJH-120	BURKS 10GA5 1 1/2AB 1HP 1PH-115V	BURKS 30GA6 1 1/2AB 3HP 1PH-230V *
AJH-140-1	BURKS 10GA5 1 1/2AB 1HP 1PH-115V	BURKS 30GA6 1 1/2AB 3HP 1PH-230V *

*Requires Magnetic Motor Starter **Single pump system size is available if required.

SPECIFICATIONS

Model Number	AJH-18	AJH-35-1	AJH-50	AJH-70-1	AJH-97-1	AJH-120	AJH-140-1
Input BTU/HR Natural Gas	185,000	350,000	500,000	700,000	970,000	1,200,000	1,400,000
Recovery Cap. GPH 100°F Rise	177	337	481	673	936	1152	1344
Water Pipe Size- Inlet/Outlet	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Gas Pipe Size	3/4"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Draft Hood Diameter	7"	9"	10"	12"	14"	16"	18"
Finned Copper Coil, I.D.	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Approx. Shipping Weight	325 lbs.	400 lbs.	450 lbs.	525 lbs.	600 lbs.	675 lbs.	725 lbs.

*Available optional equipment: Two stage valve (60% of rated heater BTU input) and compatible tank mounted dual aquastat with low fire range of 130°-240°F and high fire range of 110°-220°F. All models may be optionally factory-furnished with circulating pump delay switch to stop pump circulation approximately 2 minutes after burner ceases to fire.

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